

**SYSTEM AND METHOD FOR
COMPACTING FIELD UPGRADEABLE WIRELESS
COMMUNICATION DEVICE SOFTWARE CODE SECTIONS**

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ABSTRACT OF THE INVENTION

A system and method are provided for reorganizing software instructions stored in a wireless communications device memory. The method comprises: storing wireless device system software in a plurality of current code sections with the start of code sections at corresponding start addresses by creating a second plurality of contiguously addressed memory blocks, identifying each memory block with a corresponding code section, and storing code sections in identified memory blocks; receiving a new code section via a wireless communications device air interface; identifying a current code section for updating; calculating the code section sizes; in response to calculating the code section sizes, generating a compaction schedule; resizing current code sections; following the resizing of the current code sections, changing the code section start addresses; temporarily moving code sections into a file system section; replacing the identified current code section with the new code section by storing the code sections from the file system section into memory blocks to maintain contiguous addressing, in response to the compaction schedule; and, executing the updated system software.